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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/849,232	05/20/2004	Heng-Chung Wu	2019-0265PUS1	8352
2292	7590	08/03/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			CHIEN, LUCY P	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 08/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/849,232

Applicant(s)

WU, HENG-CHUNG

Examiner

Lucy P. Chien

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments with respect to claim 1-10 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 1,3,4,6-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over the Prior Art of Record (Figure 1) in view of Ooi et al (US 5648860).

#### *Regarding Claim 1,7,8,9,*

the Prior Art of Record (Figure 1) discloses a displaying module including an upper and lower transparent substrate, a liquid crystal layer formed between the upper and lower transparent substrate, a translucent reflecting layer formed between the liquid crystal layer and the lower transparent substrate, and a backlight module arranged below the displaying module and adjacent to the lower transparent substrate.

The Prior Art does not teach using an anti-reflection coat.

Ooi et al discloses the use of an anti-reflection coating (column 27, rows 5-25) formed between the translucent reflection layer and the lower transparent substrate. Which reduces a reflecting rate of an inner light emitting from the backlight module that

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is reflected by the translucent reflecting layer, and increases a transmission rate of the inner light passing through the translucent reflecting layer, thereby improving a luminance of the liquid crystal display.

It would have been obvious to one skilled in the art to modify the Prior Art of Record (Figure 1) liquid crystal display to include Ooi et al's anti-reflection layer motivated by the desire to reduce and inner plane reflection light on the side of the liquid crystal (column 27, rows 5-25).

Regarding Claim 3,4,

This is a product by process limitation [See MPEPE 2113], which does not distinguish the structure of the claimed device from the structure of the reference so claim 3,4 are rejected as well.

Ooi et al discloses the liquid crystal display panel device structure therefore this device claim meets this claims requirement wherein the first anti-reflection coating is grown on the lower transparent substrate in a sputter/evaporation deposition process.

Regarding Claim 6,

In addition to the prior art of record and Ooi et al as disclosed above, Ooi et al discloses the anti-reflection coating is made of chromium oxide (column 27, rows 5-25).

**Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over the Prior Art of Record (Figure 1) and of Ooi et al (US 5648860) in view of Ma et al (US 20010019381).

The Prior Art of Record nor Ooi et al discloses a second anti-reflecting coating formed above the backlight module.

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Ma et al discloses a second anti-reflecting (Page 1, [0008])(40) coating formed above the backlight module (30), whereby a second transmission rate of the inner light that passes from the backlight module to the translucent reflection layer is increased, and a reflection rate of the inner light reflected by the translucent reflecting layer is reduced. This black pad 40 acts as a light shield that prevents the light from coming through the peripheral portion of the backlight device 30 and leaking out the LCD panel 20.

It would have been obvious to one skilled in the art to modify the Prior Art of Record (Figure 1) and Ooi et al to include Ma et al's second anti-reflection motivated by the desire to prevent the light from coming through the peripheral portion of the backlight device and leaking out the LCD panel.

**Claim 5,10** are rejected under 35 U.S.C. 103(a) as being unpatentable over the Prior Art of Record (Figure 1) and Ooi et al (US 5648860) in view of Umemoto et al (US 20010030724).

The Prior Art of Record (Figure 1) and Ooi et al do not disclose the use of an adhesive layer to bond the two components together

Umemoto et al discloses (Page 3, [0028]) using adhesive layer to bond two components together.

It would have been obvious to one skilled in the art to modify the Prior Art of Record (Figure 1) and Ooi et al to include Umemoto et al's adhesive layer to bond the lower substrate with the anti-reflection layer.


**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucy P. Chien whose telephone number is 571-272-8579. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571)272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lucy P Chien  
Examiner  
Art Unit 2871

  
ANDREW SCHECHTER  
PRIMARY EXAMINER